

REMARKS

The instant Office Action rejects pending claims 1-31. Applicants respectfully disagree with the Examiner's rejections and request reconsideration of the present application in view of the remarks that follow.

Applicants also amend claim 24 to correct a typographical error. Amended claim 24 recites base coating layers to include inorganic pigments, a binder, and a discharge control agent. No new subject matter has been added.

35 USC §103(a) Rejections:

Claims 1-31 were rejected under 35 USC 103 (a) as being allegedly unpatentable over Malhotra (U.S. Patent No.: 5,709,976). With respect to claims 1-31 the rejection is respectfully traversed. Applicants respectfully request the Examiner to reconsider the rejection for the following reasons.

Claim 1:

Pending claim 1 recites a media sheet for color electrophotographic printing. The media sheet comprises a base stock having a first side and a second opposing side. A base coating layer that comprises inorganic pigments, a binder, and a discharge control agent are directly coated on to the first and second side of the base stock. Additionally, receiving layers, different from the base coating layers, are directly coated on to the base coating layers. The receiving layer includes inorganic pigments, hollow particle pigments, and a discharge control agent. Malhotra does not disclose or suggest the electrophotographic printing media sheet of claim 1.

U.S. Patent No.: 5,709,976 (Malhotra et. al):

Malhotra discloses coated papers suitable for ink jet or *electrostatic* printing. The electrostatic printing paper consists of a substrate, a **hydrophobic barrier layer** and an image receiving layer. According to Malhotra, a hydrophobic barrier layer is first coated on

both sides of the substrate with an image receiving layer overlaying the hydrophobic barrier layer.

The Office Action asserts that many of the components disclosed as anti-curl agents would read on the “discharge control agent” recited in claim 1 (page 3, lines 2-6). This assertion is not true. Malhotra discloses anti-curl agents as a component of its hydrophobic barrier layer. The specification provides examples of compounds that may be used as anti-curl agents (Col. 10, line 45 to col. 11, line 44). Nowhere does Malhotra teach or suggest a base layer comprising inorganic pigments, binder and **discharge control agents** as recited by claim 1.

Additionally, the anti-curl agents, disclosed in Malhotra are compounds that are specifically added to **reduce or eliminate paper curl** during the electrostatic printing process. There is no teaching or suggestion in Malhotra that its anti-curl compounds are capable of dissipating the charge that accumulates on a medium during the electrostatic printing process. Thus contrary to the Examiner’s assertion, the anti-curl agents in Malhotra do not read on the discharge control agents of claim 1.

The Office Action also states that Malhotra discloses an image receiving layer that comprises amongst other components, anti-static agents that read on the discharge control agents in pending claim 1. Thus, in the Office’s opinion, Malhotra teaches a media sheet for electrophotographic printing as recited in pending claim 1. However, the claimed invention comprises individual layers, each layer having specific components. The layers prevent blistering and defects from uneven color density of the paper on to which they are coated. It should be noted that the components of the individual layers are **not** just a random group of components that can be interchanged at will. The choice of components for each layer, the relationship between the components of a layer and the two layers themselves is an aspect of the invention. These relationships are emphasized throughout the specification (e.g. on page 4, lines 17-19) and are also **elements** of the claim language.

It is noted that the Office Action comments in several places that the invention recited by claim 1 would have been obvious to an artisan of ordinary skill in the art, having

knowledge of Malhotra's teachings. However, Malhotra neither teaches nor suggests every element of pending claim 1. For example, Malhotra does not teach a discharge control agent as part of its hydrophobic (base) layer. An artisan of ordinary skill would not be motivated to modify Malhotra's invention so as to build the invention of pending claim 1. Modifying the hydrophobic barrier layer of Malhotra to include discharge control agents, would alter the properties of the hydrophobic barrier, thus altering Malhotra's invention. Importantly, Malhotra's disclosure would not teach or suggest such a modification to its hydrophobic barrier to one of ordinary skill in the art. The Examiner's assertion that the current invention is unpatentable in view of Malhotra is mere hind-sight.

Claim 1 distinguishes over the cited reference and contains patentable subject matter.

Claim 24:

Independent claim 24 is rejected under 35 USC 103 (a) as being unpatentable over Malhotra. Claim 24 recites a media sheet comprising a base stock, a base coating layer and a receiving layer. The base layer includes inorganic pigments, a binder, and a charge control agent, while the receiving layer includes inorganic pigments, a binder, and a sodium salt of a sulfonated polystyrene discharge control agent. Malhotra fails to teach the invention of claim 24.

The arguments made above for overcoming the rejection of independent claim 1 also apply here. Malhotra does not teach every limitation of claim 24. As mentioned above for overcoming the alleged rejection of independent claim 1, Malhotra fails to teach or suggest incorporating a discharge control agent in its hydrophobic barrier, as required by pending claim 24.

The Office Action acknowledges that Malhotra does not teach polyelectrolytes or the anionic sulfonated polystyrene salts as discharge control agents. Malhotra, mainly relies on positively charged alkyl ammonium salts and esters of sulfosuccinates (non-ionic) to serve as its anti-static agents. Any one of the aforementioned deficiencies, namely, the absence of a discharge control agent in Malhotra's hydrophobic barrier or the lack of any teaching or

suggestion with regards to the sodium salt of sulfonated polystyrene as the discharge control agent in the image receiving layer, in itself would be sufficient to invalidate the 103 rejection. Thus, the rejection of claim 24 in view of Malhotra is improper.

It is also worth noting that the Office Action comments in several places that the instant invention recited by claim 24 would be obvious to a person of ordinary skill in the art possessing knowledge of Malhotra's invention. Accordingly, the skilled artisan would be motivated to try **other** conventional anti-static agents, including the polysulfonated styrene analogs to modify Malhotra's image receiving layer. Without acquiescing to the merits of these comments, Applicants state that even if Malhotra's image receiving layer is altered to include polysulfonated styrene analogs as its anti-static agent, this reference would still fail to teach an electrophotographic printing media sheet wherein the base coating layer includes **discharge control agents** and a receiving layer that includes the **sodium salt of a sulfonated polystyrene** as its discharge control agent.

Thus, claim 24 is also patentable over Malhotra and Applicants respectfully request the Examiner to reconsider and withdraw the rejection.

Rejection of the Dependent Claims:

The Office Action rejects claims 2-31 under 35 USC 103 (a) as being unpatentable over Malhotra (U.S. Patent No.: 5,709,976). Applicants respectfully disagree.

Claims 2-23 and 25-31 depend on independent claims 1 and 24 respectfully. The dependent claims incorporate all the limitations of their respective base claims. For this reason alone, claims 2-31 are patentable over Malhotra, as their respective independent claims distinguish over Malhotra.

Additionally, the Examiner has explicitly stated that the subject matter of claims 3 and 4 would be within the knowledge of one of ordinary skill, or easily determined by such a person through routine experimentation. Without acquiescing to the merits of these rejections Applicants assert that dependent claims 3 and 4 incorporate the limitations of patentable

claim 1 and as such are in condition for allowance for at least the same reasons mentioned above for claim 1.

Furthermore, some dependent claims are patentable for other independent reasons. For example, claim 15 depends on claim 1 and recites the discharge control agents of the base and receiving layers to be a polyelectrolyte. Claim 16 recites a polyelectrolyte having a polar side group, while claim 17 discloses the polyelectrolyte to be a sulfonated polystyrene. Claim 18 recites a sodium salt of sulfonated polystyrene, while claim 19 discloses the molecular weight range for the sulfonated polystyrenes used as discharge control reagents. As mentioned above for claim 1, Malhotra does not disclose discharge control agents as components of his hydrophobic barrier layers, and it certainly does not teach or suggest the use of polyelectrolytes having a defined molecular weight range as discharge control agents. Dependent claims 15-20 are thus patentable over Malhotra.

Furthermore, claim 25 depends on claim 24 and recites a binder in the receiving layer to include hollow particle pigments, while claim 31 recites a media sheet devoid of a dedicated binder in the receiving layer. The cited prior art reference neither suggests nor teaches an image receiving coating devoid of a polymeric binder. In fact, the prior art clearly states the image receiving coatings **to contain** a polymeric binder.

Thus, for the reasons stated above claims 1 and 24, as well as the claims that depend therefrom distinguish over the cited reference. Reconsideration of the rejection is respectfully requested.

CONCLUSION

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.


The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 08-2025. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 08-2025. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 08-2025.

Respectfully submitted,

Date: March 11, 2008

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